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WHAT IS CLAIMED IS

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1. A reflection-type liquid crystal display device, comprising:

a first substrate;

10 said second substrate disposed so as to face said first substrate, said second substrate carrying projections and depressions thereon;

15 a reflective electrode provided on said second substrate so as to cover said projections and depressions in electrical contact with a switching device provided on said second substrate via a contact hole; and

a liquid crystal layer provided between said first and second substrates, said liquid crystal layer having a negative dielectric anisotropy,

20 wherein said contact hole is disposed centrally to said reflection electrode, and

25 wherein a structure controlling alignment of liquid crystal molecules in said liquid crystal layer is disposed so as to overlap said contact hole when said second substrate is viewed in a direction perpendicular thereto.

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2. A reflection-type liquid crystal display device as claimed in claim 1, wherein said structure is provided on said reflection electrode.

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3. A reflection-type liquid crystal display device as claimed in claim 1, wherein said structure is provided on a surface of said first substrate facing said second substrate.

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4. A reflection-type liquid crystal display device as claimed in claim 1, wherein said structure has a size generally equal to a size of said contact hole when viewed in a direction perpendicular to said second substrate.

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5. A reflection-type liquid crystal display device as claimed in claim 1, wherein said structure has a height corresponding to a step height formed in said reflection electrode by said contact hole.

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6. A method of fabricating a reflection-type liquid crystal display device comprising a first substrate, a second substrate provided so as to face said first substrate, said second substrate carrying thereon projections and depressions having a reflectivity, a liquid crystal layer having a negative dielectric anisotropy provided between said first and second substrates, and an optically polymerized polymer structure provided between said first and second substrates, said method comprising the steps of:

causing optical polymerization of a compound

constituting said polymer structure by irradiating light perpendicularly to said second substrate and causing reflection of said light by said projections and depressions in an in-plane direction of said 5 second substrate;

said step of causing optical polymerization is conducted by providing an in-plane directivity to the light reflected by said projections and depressions by optimizing a shape of said 10 projections and depressions, such that said optical polymerization is conducted in a direction corresponding to said in-plane directivity.

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7. A reflection-type liquid crystal display device, comprising:

a first substrate;
20 a second substrate disposed so as to face said first substrate;
a liquid crystal layer having a negative dielectric anisotropy disposed between said first and second substrates; and
25 a vertical alignment film formed on a surface of said first substrate and a surface of said second substrate,
wherein said alignment film contains a vertical alignment component with a proportion of 25% 30 or more with regard to total diamine components.

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8. A reflection-type liquid crystal display device, comprising:

a first substrate;

a second substrate disposed so as to face said second substrate, said second substrate carrying thereon projections and depressions having a reflectivity;

5 a liquid crystal layer having a negative dielectric anisotropy disposed between said first and second substrates; and

10 a polarizer disposed at an outer side of said first substrate such that an absorption axis of said polarizer extends generally parallel to a direction in which a reflection intensity caused by said projections and depressions becomes maximum.

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9. A reflection-type liquid crystal display device, comprising:

a first substrate;

20 a second substrate disposed so as to face said first substrate, said second substrate carrying projections and depressions having a reflectivity;

25 a liquid crystal layer having any of positive or negative dielectric anisotropy provided between said first and second substrates; and

a polarizer disposed at an outer side of said first substrate,

30 an optical phase compensation film disposed between said first substrate and said polarizer, said optical phase compensation film having a negative dielectric anisotropy in a direction perpendicular to a plane of said first substrate,

35 said optical phase compensation film having a retardation $df\{(n_x+n_y)/2-n_z\}$ so as to satisfy the relationship

$$0.4 \leq [df\{(n_x+n_y)/2-n_z\}]/(dlc\Delta n) \leq 0.7,$$

wherein n_x , n_y and n_z are refractive indices of said

optical phase compensation film respectively in an x-direction, a y-direction and a z-direction, dlc is the thickness of said liquid crystal layer, and Δn is a refractive index difference between an extraordinary ray and an ordinary ray in the liquid crystal layer.

10 10. A reflection-type liquid crystal display device as claimed in claim 9, wherein said optical phase compensation film has a retardation axis in a direction parallel to said first substrate.

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11. A reflection-type liquid crystal display device as claimed in claim 9, further comprising, 20 between said polarizer and said optical phase compensation film, another optical phase compensation film having a positive dielectric anisotropy in the direction parallel to a plane of said first substrate, said another optical phase compensation film having a 25 retardation of about 1/4 of the wavelength of visible light..

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12. A reflection-type liquid crystal display device as claimed in claim 11, wherein said optical phase compensation film and said another optical phase compensation film have a retardation axis in a 35 direction parallel to said first substrate.

13. A reflection-type liquid crystal display

device as claimed in claim 12, wherein said optical phase compensation film and said another optical phase compensation film have respective retardations such that a sum of said retardation of said optical phase compensation film and said retardation of said another optical phase compensation film is equal to about 1/4 of the wavelength of visible light.

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14. A reflection-transmission-type liquid crystal display device, comprising:

15 a first substrate;
 a second substrate provided so as to face said first substrate;

 a transparent electrode provided on a surface of said first substrate facing said second substrate;

20 a reflection electrode provided on a surface of said second substrate facing said first substrate, said reflection electrode having an opening;

25 a scattering layer provided between said first and second substrates, said scattering layer including therein a liquid crystal layer and changing an optical state thereof between a scattering state and a non-scattering state; and

30 a pair of polarizers disposed at outer sides of a liquid crystal panel formed by said first substrate, said second substrate and said scattering layer,

 at least one of said polarizers is formed of a circular polarizer.

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15. A reflection-transmission-type liquid crystal display device as claimed in claim 14, wherein each of said pair of polarizers is formed of a circular polarizer.

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16. A reflection-transmission-type liquid crystal display device as claimed in claim 14, wherein one of said pair of polarizers is a linear polarizer.

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17. A reflection-transmission-type liquid crystal display device as claimed in claim 14, wherein said scattering layer has a retardation of $(0.5n + 1/4)\lambda$, where λ is the wavelength of visible light and n is a natural number in said non-scattering state thereof

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18. A reflection-transmission-type liquid crystal display device as claimed in claim 14, wherein said scattering layer has an in-plane retardation in said non-scattering state thereof such that said in-plane retardation is smaller than a product $\Delta n \cdot d$, where Δn is the birefringence of a liquid crystal layer constituting said scattering layer and d is the thickness of said liquid crystal layer.

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19. A reflection-transmission-type liquid crystal display device as claimed in claim 14, wherein said reflection electrode has a slit shape.

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20. A reflection-transmission-type liquid crystal display device as claimed in claim 14, wherein
10 any of said first and second substrates carries a color filter, said color filter having a reflection region corresponding to said reflection electrode and a transmission region corresponding to said transmission region, said color filter having
15 different color purities in said reflection region and in said transmission region.

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21. A reflection-transmission-type liquid crystal display device as claimed in claim 20, wherein said color filter is provided on said reflection electrode.

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